

**NORTH CAROLINA  
LAPIDARY SOCIETY**

**January  
1982**



**MEETINGS:**

First Thursday each month  
GEMCRAFTERS  
2106 Patterson St.  
Greensboro, N.C. 27407



MEETING DATE : January 7, 1982  
TIME : 7:30 PM  
PLACE : GEMCRAFTERS  
2106 Patterson St.  
Greensboro, NC  
PROGRAM : DISPLAY CASES - Five different display cases, each with different construction and lighting will be set up. There will be a discussion of some of the advantages and disadvantages of each.

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## OFFICERS 1982

PRESIDENT : THOMAS J. RICKS  
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Liberty, NC 27298  
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BULLETIN  
EDITOR : THOMAS J. RICKS  
Rt. 3 Box 347  
Liberty, NC 27298

EXECUTIVE BOARD meets at the call of the president.

MEMBERSHIP DUES : \$12.00 per year - prorated quarterly.

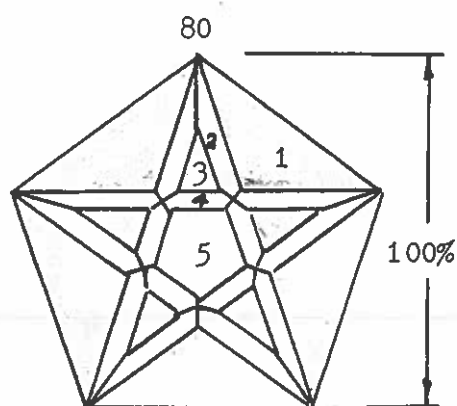
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# American Star for CZ

by Robert H. Long  
Mercer Island, WA



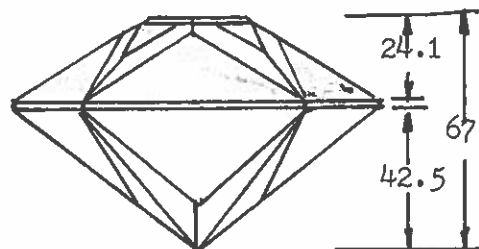
<u>STEP</u>	<u>ANGLE</u>	<u>INDEX</u>
PF-1	90°	08-24-40-56-72

## C-R-O-W-N

C-1	40.1°	08-24-40-56-72
C-2	35.0°	06-10-22-26-38 42-54-58-70-74
C-3	27.5°	80-16-32-48-64
C-4	17.5°	80-16-32-48-64
C-5	0°	ANY - TABLE

DO NOT POLISH C-1 FACETS.

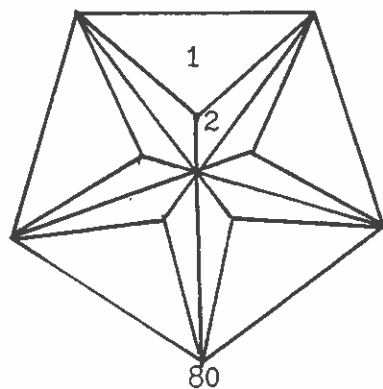
C-3 POLISH OPTIONAL.



## P-A-V-I-L-I-O-N

P-1	45.0°	08-24-40-56-72
P-2	40.8°	06-10-22-26-38 42-54-58-70-74

GIVEN INDEX SETTINGS CONVERT DIRECTLY  
TO THE 120 TOOTH INDEX GEAR.



by Tom Ricks

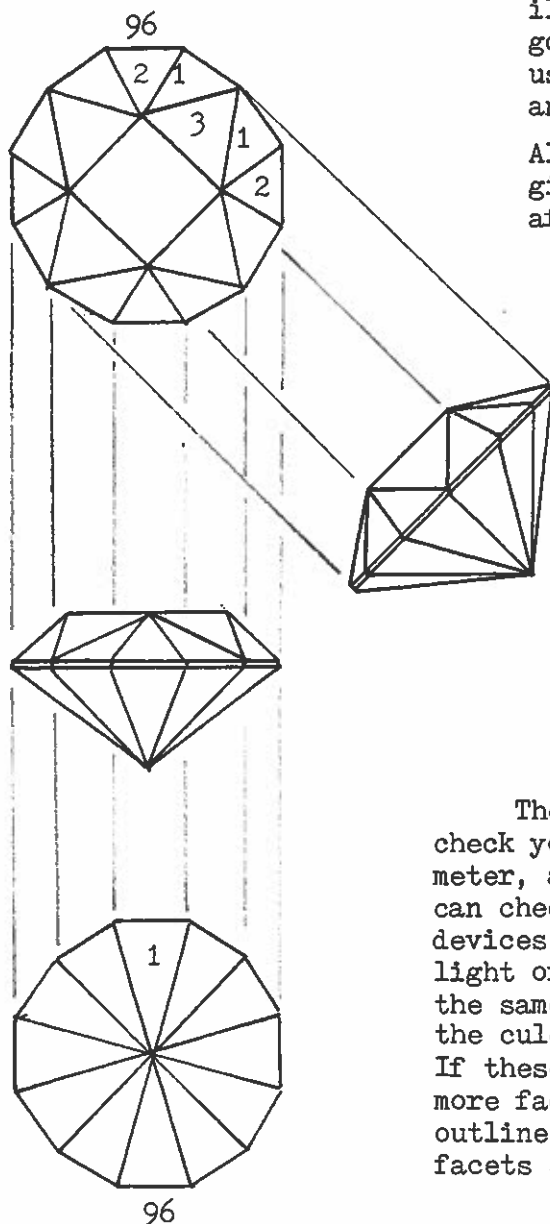
Having only seventeen facets on the crown and twelve facets on the pavilion, it is a very easy design to cut. Nevertheless, it provides excellent practice for the beginning (and some experienced) faceter in making all twelve pavilion facets "meet" at the culet. It is also a good exercise in making those minor angle adjustments frequently needed in the prepolish and polish stages to obtain accurate "meets".

Almost any cutting sequence can be used. The girdle can be preformed first (pavilion STEP 2) after which either the crown or pavilion can be cut. The pavilion can be cut first as a "Meet Point" sequence, which I have chosen to present. Or you can even start by cutting the table.

<u>STEP</u>	<u>ANGLE</u>	<u>INDEX</u>
1.	43°	08-16-24-32 40-48-56-64 72-80-88-96
2.	90°	08-16-24-32 40-48-56-64 72-80-88-96

NOTE: The pavilion STEPS can be performed in reverse if desired. .

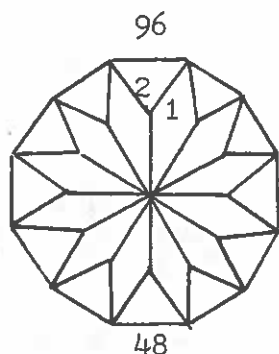
The pavilion of this design is a good chance to check your cutting accuracy. If your machine has a meter, an electronic stop or a dial indicator, you can check on how good a job you are doing with these devices. If you cut by "ear", rely on a flashing light or just "cut and look", the result should be the same. The pavilion facets must meet accurately at the culet and must meet the girdle facets precisely. If these meets are not precise it means that one or more facets have been over/undercut and the girdle outline of the stone is not symmetrical. The girdle facets should form a level line all around the stone.



## BASIC ROUND - con't.

CROWN

<u>STEP</u>	<u>ANGLE</u>	<u>INDEX</u>	<u>COMMENT</u>
1.	45°	08-16-32-40 56-64-80-88	Note that the break facets are cut first in the crown sequence.
2.	50°	24-48-72-96	This is to establish a level, even girdle line for the crown matching that of the pavilion.
3.	38°	12-36-60-84	Mains. Cut to meets at girdle.
4.	0°	ANY	Cut TABLE to "meets" at all four corners formed by intersection of STEPS 1, 2 and 3.

ALTERNATE PAVILION

A slightly more complex stone is achieved by adding break facets to the pavilion. These breaks occupy the positions of the mains on the simpler pavilion and the mains are rotated four index gear teeth.

<u>STEP</u>	<u>ANGLE</u>	<u>INDEX</u>	
1.	43°	04-12-20-28 36-44-52-60 68-76-84-92	<u>M-A-I-N-S</u>
2.	45°	08-16-24-32 40-48-56-64 72-80-88-96	<u>B-R-E-A-K-S</u>
3.	90°	08-16-24-32 40-48-56-64 72-80-88-96	<u>G-I-R-D-L-E</u>

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EUREKA !!!

Your editor has finally got it all together.

Now, if he could only remember where he put it.

from a sign seen on an office wall. TJR.

\*\*\*\*\*

# CAROLINAS OPEN FACETING COMPETITION

SPONSORED BY : THE NORTH CAROLINA LAPIDARY SOCIETY

HOSTED BY : THE CHARLOTTE GEM AND MINERAL CLUB  
at GEMFEST '82, the annual Gem and  
Mineral Show and Sale

April 30 and May 1 & 2, 1982

This competition is open to all North and South Carolina faceters regardless of Club or Federation affiliation. Judging will be for workmanship only.

## TWO CLASSES OF COMPETITION -

### A. SINGLE STONE ENTRY

This stone shall be a round brilliant having 57 facets (not including the girdle if the girdle is faceted). The girdle may be faceted (16 facets) and shall be polished. If not faceted, the girdle shall be one continuous flat (not rounded) facet completely encircling the stone.

### B. THREE STONE ENTRY -

1. Any round brilliant design. Any brilliant design and any number of facets as long as the girdle outline is round. The girdle may be faceted and, if so, 16 or more girdle facets shall qualify the stone as round. Girdle requirements are the same as for the single stone entry.

2. Any rectangular or square design. Any "brilliant" or "step" or "mixed" design as long as the girdle outline of the stone is rectangular or square. Corners may be cut as in the emerald cut but cuts such as hexagonal and octagonal designs having six or eight equal sides are disqualified.

3. Any design with a curved girdle outline. Any brilliant or step or mixed design with a curved (not round) girdle outline, eg. oval, marquise, heart or pear (pendeloque). Girdles shall be polished and may be faceted. If faceted, the girdle must be composed of at least 16 facets to qualify as a curved outline. If not faceted, the girdle requirements of the single stone entry apply.

STONE SIZE - At least 10mm in the smallest girdle dimension.

TABLE SIZE - Table sizes shall be 50-60% of the girdle dimension.

MATERIAL - QUARTZ. Natural or synthetic. Value/rarity immaterial.

## THE FOLLOWING POINT SCORING SYSTEM WILL BE USED

<u>MAKE (Cutting) 50 points</u>		<u>FINISH 50 points</u>	
1. Table parallel to girdle	5	1. Polish (not incl. girdle)	25
2. Table size	4	2. Flatness of facets	5
3. Girdle thickness	5	3. Facet junctions	5
4. Girdle uniformity	8	4. Culet	7
5. Facet "meets"	20	5. Girdle polish	8
6. Crown/pav. alignment	8		
7. Angles - no examination -			-----
"Fisheyes" - 25 pt. penalty.			50

-----  
50

TOTAL POSSIBLE SCORE 100 POINTS

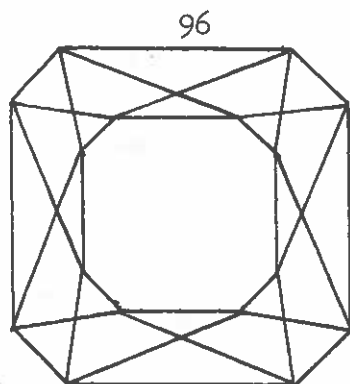
PRIZES AND AWARDS ARE BEING ARRANGED AND WILL BE ANNOUNCED.

FACETING COMPETITION TEXAS-STYLE

The Clear Lake (TX) Gem and Mineral Society will hold its 6th annual faceting competition in connection with the Gem and Mineral Show on 6 & 7 February, '82. This is a single-stone competition. Details of the specified design are below. Mail-in entries are permitted and must arrive before 6 Feb. 1982. NCLS MEMBERS ARE INVITED TO ENTER. See Tom Ricks for details.

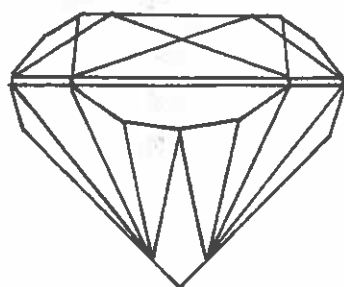
BARION WITH MODIFIED CROWN - Angles for CZ.

PAVILION (See Vargas, DIAGRAMS for FACETING, p. 150)



- |   |                                  |
|---|----------------------------------|
| 1. 4 facets at $41^{\circ}$   | Index 96-24-48-72                |
| 2. 4 corner mains at $43^{\circ}$                                       | Index 12-36-60-84                |
| 3. 8 mains at $42^{\circ}$  | Index 06-18-30-42<br>54-66-78-90 |
| 4. 8 girdles at $90^{\circ}$  | Index 96-12-24-36<br>48-60-72-84 |
| 5. 4 breaks at $58^{\circ}$   | Index 96-24-48-72                |
| 6. 8 mains at around $42^{\circ}$<br>plus or minus $\frac{1}{2}$ degree | Index 01-23-25-47<br>49-71-73-95 |

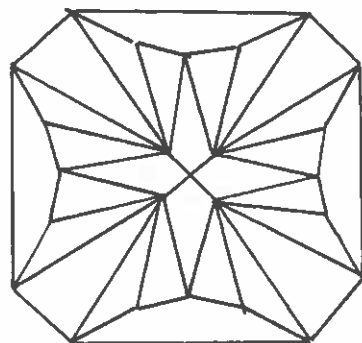
Polish all but girdle facets -- polish girdle facets after transfer to insure proper alignment.



CROWN (Designed by John Carlton, Clear Lake G & M Soc.)

Polish girdle facets to insure proper alignment.

- |   |                                  |
|---|----------------------------------|
| 1. 4 main breaks at $57^{\circ}$              | Index 96-24-48-72                |
| 2. 8 crown mains at $35^{\circ}$              | Index 06-18-30-42<br>54-66-78-90 |
| 3. 4 main stars at $15^{\circ}$               | Index 96-24-48-72                |
| 4. 4 corner stars at $24\frac{1}{2}^{\circ}$  | Index 12-36-60-84                |
| 5. 4 corner breaks at $45\frac{1}{2}^{\circ}$ | Index 12-36-60-84                |
| 6. Table at $0^{\circ}$ .                     |                                  |



FOR ENTRY IN THE COMPETITION - Use clear (colorless, Ed.) cubic zirconium. The finished stone size should measure 10 mm plus or minus 0.5 mm between the long girdle facets. Some angles (6 on pavilion and 3-4-5 on crown) may be varied to get proper proportions.

Entry applications and copies of Judges scoring sheet are available from Tom Ricks.

RULES FOR CABOCHON COMPETITION -

We've been thinking about rules for judging cabochons for a long time. Here, from STONEY STATEMENTS, bulletin of the Clear Lake (TX) Gem and Mineral Society, are the rules they will use in judging the cabochon competition at their annual Gem and Mineral Show.

RULES:

Traditional (domed top) oval cabochon - 30 x 40 mm (unmounted) - exhibitor's choice of material.

Cab must have been cut free-hand without benefit of automatic cabbing machine, optical grinding machine or tumbler.

JUDGING POINTS:

OUTLINE SHAPE AND SIZE:		BACK OF STONE:	
correct shape	5	flatness	2
correct size ( $\pm .5$ mm)	5	no undercuts/pits	2
HARMONY (PROPORTION):		no chips	3
proportion correct	5	polish (luster)	8
symmetrical	5	OVERALL WORKMANSHIP:	
TOP OF STONE:		no internal flaws/	
no flats	5	fractures	4
no undercuts/pits	5	aesthetic appeal	6
no chips	5		
polish (luster)	20		
BACK BEVEL:		TOTAL POINTS POSSIBLE:	100
even width, not too			
wide/narrow	5		
no flats, not rounded	5		
no undercuts/pits/chips	3		
angle	2		
polish (luster)	5		

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BEVELS AND BEZELS

For the novice lapidary it is easy to become confused between the terms "bezel" and "bevel".

A BEVEL is ground on the flat bottom edge of a cabochon shaped at an angle of 45 degrees. The bevel has several purposes. It makes the stone easier to pick up from flat surfaces, it is less likely to chip, and it will allow a little in setting the stone if there are any imperfections in the commercial finding. It should be polished to the same degree as the face.

A BEZEL is what the stone is set into. That is, the narrow band of metal which will be shaped to fit snugly around the stone to hold it firmly in place. The height of the bezel depends on the diameter and height of the cabochon. To make a perfect finish the metal should seem to flow on in a natural curve which merges into the stone.

from "Thumblicker" and "Rock-A-Gram" via "Tomoka Coquina".

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REMOVING CONTAMINATION FROM THE "LAST LAP".

From W. A. (Bill) Price of Kennedy Space Center, FL comes the following description of a method for removing contamination from the "Last Lap".

"Contrary to the way I was taught, I seldom wash a lap. Normally I am cutting with oil and after slinging off the oil by running at high RPM, store the lap in a food storage bag within a cardboard box. The same bag is used with the same lap until discarded. I use the "Last Lap" dry or with 1 drop of oil.

On two occasions I scrubbed "Last Laps" - one mine and one a student's. I used a stiff hand brush and liquid detergent then rinsed with water. One lap still scratched and contamination could not be identified.

Using a smooth agate and running the lap at 50% speed with moderate to heavy pressure applied to the zone where scratching occurred, the problem was corrected. The lap has not scratched since that time in that zone. In two other cases I recommended the agate treatment to other faceters and it worked well for both of them."

SCRATCHES AND GROOVES IN YOUR CERAMIC LAP?? TRY THIS.

W. W. (Woodie) Tew of High Point, NC maintains that you can remove scratches and grooves from the ceramic lap yourself without sending the lap away for refinishing.

Dop a large piece of quartz (about 1" in diameter) and insert it in the faceting machine at about a 45 degree angle. Spread 600 grit diamond compound over the lap with a little extender fluid to make the compound spread easier. Using moderate pressure and slow to moderate speed, work the diamond over the entire surface of the lap. As the compound builds up on the quartz, remove it with a finger and replace it on the lap.

Woodie says it takes about two hours to make both sides of an 8-inch lap like new.

FACETING WORKSHOPS TO BEGIN JANUARY 16, 1982.

Faceting workshops for both beginning faceters as well as faceters with some experience will begin on Saturday, January 16, 1982. For each workshop, a fee of \$25.00 will be charged for four all-day sessions on consecutive Saturdays.

Pauline Keeney will be in charge of the beginning faceters' workshop.

Tom Ricks will moderate the workshops for experienced faceters.

If you would like to be included in one of these workshops, please call the Workshop Coordinator, Dennis Walters at 919-349-9363 or see Dennis at the January meeting. Reservations for these sessions are on a first-come basis and the number of participants is limited to six in each case.

LAST NOTICE FOR 1982 DUES :

If you have not already done so, please pay your 1982 dues before or at the January meeting. Dues are \$12.00. Checks should be made payable to NCLS and sent to the Treasurer at his home address or given to any society officer.

The 1982 membership roster, mailing list and address labels will be prepared in mid-January. Please cooperate so that your copies of STONE CUTTER can continue without interruption and won't have to be addressed by hand.

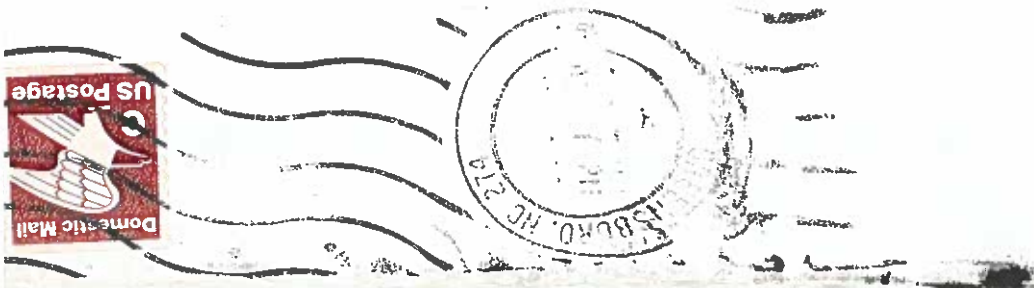
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## FIRST CLASS



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## GEMFEST '82

Annual Gem & Mineral Show

Sponsored By

THE CHARLOTTE GEM & MINERAL CLUB, INC.

### SHOW CHAIRMAN

Michael L. Bailey  
6418 Tomahawk Ln.  
Charlotte, NC 28214

### SHOW DATES

April 30  
May 1 & 2  
1982

### DEALER CHAIRMAN

Andy Clark  
2334 Cartwright Pl.  
Charlotte, NC 28208

### THURSDAY, APRIL 29

Set Up For  
Exhibits & Dealers  
10:00 A.M. to 9:00 P.M.

### FRIDAY, APRIL 30

Judging of Exhibits  
Educational Demonstrations &  
Slide Programs  
Show Open 10:00 A.M. to 9:00 P.M.

### SATURDAY, MAY 1

Educational Demonstrations &  
Slide Programs  
Show Open 10:00 A.M. to 9:00 P.M.

### SUNDAY, MAY 2

Educational Demonstrations &  
Slide Programs  
Show Open - Noon to 6:00 P.M.